

May 18, 2019

Emma, with respect to Dugway you wrote:

Do you know if anyone ever tested the Dugway church system. That was what Clack recommended, was to build a pilot and see if it works. Did anyone follow through on that recommendation?

The COJCOLDS Water Resources Manager, Roy McDaniel, embedded "before" and "after" water sample results for manganese in the Dugway Well water through the treatment vessels. The initial results show nice reduction from over 750 micrograms/Liter to 29, 12, 4, and even 0 micrograms/Liter. So, yes, the manganese removal process was tested at or about day 1, but maybe never again before my April 28, 2017, sanitary survey. Clack Corporation did not recommend a pilot plant, or anything else. Clack Corporation simply sells products that consultants select for designed treatment facilities. A pilot plant would not have fulfilled the Rule R309-535-13, New Treatments, requirement of previously demonstrated full-scale success anyway. Right before the June 8, 2018, letter that Clack Corporation gave me 9 months after my firing, Paul Check told me he would never have endorsed the design that COJCOLDS Water Resources Manager, Roy McDaniel's consultants came up with. It will not work.

During my sanitary survey, it seemed apparent to me that the treatment process was goofy. There were as many vessels as there were types of resins that were called out in the preconstruction plans reviewed and approved by DDW. I asked the operator, and he said, "oh, they are all in one vessel, in different bedded layers."

I followed up a few days later from my office with Clack Corporation's Paul Check. He told me that Clack Corporation does not endorse that goofy design, and he said he could not fathom how the process could have worked more than a few days right after start-up in 2015 as the design does not allow for adequate backwash of the mish-mash of resins in the one vessel. Each resin has specifically different backwash requirements, which is why each resin is supposed to be in a separate vessel in a train of vessels. When the brand-new resins got saturated with removed manganese the very first time, that was probably the end of successful treatment. Paul figured that the resins have never been properly backwashed ever.

I did not need to be persuaded by Paul Check. I came to the same conclusion during my sanitary survey. I was appalled that the operator had no water sample "before" and "after" results for the 2+ years since process start-up. In my report write-up, I assessed the water system deficiency points for inadequate process control testing.

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**Sanitary Survey Category: TR**

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**SDWIS Severity Code: Minor Deficiency****TP001-TP001 - IRON AND MANGANESE REMOVAL - (Active) / General / General**

Is the facility performing process control testing consistent with the specific treatment process?

**Answer Recorded** No**Comments** R309-525-19**R309-525-19 requires operation and maintenance manuals to be prepared specific to the treatment provided. They shall describe normal operating procedures, maintenance procedures and emergency procedures. 30 demerit points shall be assessed****Notes:**

INFLUENT/EFFLUENT IRON &amp; MANGANESE WERE TESTED 3 TIMES IN 2015; NO KNOWN ONGOING PROCESS CONTROL SAMPLES; RAW WATER TDS, SULFATE, &amp; CHLORIDE HAVE DRAMATICALLY WORSENERED; DDW RECOMMENDS UPDATED RAW WATER CHEMISTRIES;

**Demerit Points:** 30**Days to Correct Deficiency:****SDWIS Deficiency Description:** TG32 INADEQUATE PROCESS CONTROL TESTING

During my report preparation, I told then-new Division of Drinking Water Director Marie Owens that I needed to email the CONCORDS Water Resources Manager, Roy McDaniel, P.E., at Church Headquarters some questions needing answers for my report, because the local water operator at Dugway was not very knowledgeable about the manganese removal process. Owens told me to give my questions to DDW's Dave Hansen, who would serve as the direct contact with McDaniel, she said, because McDaniel would feel more comfortable working with Dave Hansen. I inferred that Owens meant that as non-COJCOLDs I was not good enough to speak directly to McDaniel.

Hansen did get some answers to my questions for me. One of the emails back from McDaniel contained perhaps one of the most appalling engineering misstatements that I read in my 20 years at DEQ. McDaniels wrote, "We are comfortable with [not sampling for manganese] since there are no adverse health effects if the iron and manganese levels are high." As you know from the publications that I sent you, and comments from Dr. Benson, manganese is a very serious drinking water contaminant causing neurological problems especially in fetuses, babies, and young children.

Before sending my final report to the water system, I reviewed my report with Owens, alerting her to the assessed deficiency points for failed manganese sampling of the treated water to ascertain treatment efficiency. I told Owens that my professional judgment, and that of Clack Corporation's Paul Check, was that the process design was flawed, and I told her that DDW should not have approved it if only because it failed the Rule R309-53513, New Treatment.requirement that the process have been previously proved effective in a full-scale application. It had never been so proved.

Owens became visibly angry with me, telling me I had no right on my sanitary survey to revisit previously approved by DDW facilities, telling me I was not a team player in my

questioning of previously approved by DDW facilities, telling me that she would not tolerate my attacking the review recommendations of the junior engineer who had reviewed the Dugway plans and drafted for management signature the:

DDW-2014-017037.pdf November 14, 2014 DDW Approval

DDW-2015-006761.pdf April 28, 2015 DDW Operating Permit

That then-junior engineer was Tammy North. P.E. Her initials are in the footers of the letters. She now works for [Kearns Improvement District](#).

Owens told me to undo my assessment in my draft report of deficiency points for the water system's inadequate process control testing for manganese in the treated drinking water. She told me that she knew CONCORDS Water Resources Manager, Roy McDaniel, through her affiliation with the Church, that Roy McDaniel certainly knew more about any needed manganese process control sampling for the Dugway water system, and he would never fail to assure that his water systems throughout Utah are operated correctly.

I partly capitulated to Owens directive in that I changed the process control question's answer from "Adequate process control? No," to "adequate process control? Unknown." I feared retaliation from Owens if I refused to remove the "no" answer, but I refused to unethically record the "yes" answer that I knew to be untruthful.

4.01	Is the facility performing process control testing consistent with the specific treatment process?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> Unknown
Notes: RAW/FINISHED FE/MN/NTU TESTED 3 TIMES 2015; NO KNOWN SAMPLES SINCE THEN EVEN AT DDW/SDWIS RW001 (RW) AND TP001 (UP) ACTIVE SAMPLING POINTS; INFLUENT TDS, SULFATE, & CHLORIDE HAVE WORSENERD; NEW INFLUENT CHEMISTRIES ADVISED;		

By this time, I had already been reassigned on February 3, 2017, out from under DDW Engineering Section manager Ying-Ying Macauley's supervision, to report directly to Owens. That was the start of their conspiracy to fire me. Macauley, I later found out, filed four secret abusive conduct complaints against me. I had filed a January 6, 2017, Utah Admin. Rules R477-16-2 abusive conduct against Macauley. She cross-complained on January 18, 2017, and relentlessly filed more complaints even after this, on February 15, 2017; again on April 12, 2017; and again on April 20, 2017.

Later in my July 12, 2017, Letter of Intent to Discipline - Termination, Owens accused me, "[Y]ou you have repeatedly researched and criticized other employee's projects and accused co-workers of incompetence." My researching of existing water system facilities before conducting sanitary surveys was doing my job thoroughly and professionally.

In my opinion, DDW Engineering Section manager should be held accountable under the Professional Engineers Rule (attached copy) for failed supervision of the DDW junior engineer who reviewed the Dugway manganese removal project. And, that junior engineer should be held accountable for review errors with respect to manganese removal Rules, and engineering design, as well as chlorine disinfection process errors in the same overall design project [I found and documented chlorine disinfection process sizing errors, too].

If you talk again with Dr. Benson, you can describe the Dugway well as having 760 ug/L (Micrograms per Liter), and mention that I had called seeking his support that such untreated, or failed treatment, level is a dire health risk especially to infants and children. Perhaps remind him that his EPA colleague, Dr. Bob Clement, was the one who referred me to Dr. Benson.

Sincerely,

Steve Onysko

Attachments:

Clack_Corp.pdf	June 8, 2018, Letter to Onysko
DDW-2014-017037.pdf	November 14, 2014 DDW Approval
DDW-2015-006094.pdf	January 22, 2015 Permit Request
DDW-2015-006761.pdf	April 28, 2015 DDW Operating Permit
DDW-2017-006181 SS 2017.pdf	May 26, 2017, Dugway Ward Sanitary Survey Report
Licensed_Engineer_Unprofessional_Conduct.pdf	
Textbox_R309-535-13 New Treatments.pdf	





